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REMARKS

Claims 1, 2, 4, 6-8, 10-12, 15-16, 18-20, 22, 25-26 and 28-30 of the application stand rejected. Claims 1, 8, 15, 19, 25 and 29 have been amended herein to more clearly define the scope of the presently claimed invention. Applicants respectfully request reconsideration of these pending claims in light of the amendments and remarks herein.

_35 U.S.C. §103_

Claims 29 and 30 are rejected under 35 U.S.C. §103 as being unpatentable over Junqua et al, U.S. Patent No. 6, 415,257 ("Junqua") in view of Curry et al., U.S. Patent No. 6,493,669 ("Curry"). Claims 1, 2, 6-8, 11, 12, 15, 16, 18-20, 22, 25, 26 and 28 stand rejected under 35 U.S.C. §103 as being unpatentable over Sherwood, U.S. Patent No. 6, 212, 498 ("Sherwood") in view of Sharma et al, U.S. Patent No. 6, 480,825 ("Sharma") and in further view of Curry. Additionally, Claims 4 and 10 stand rejected under 35 U.S.C. §103 as being unpatentable over Sharma in view of Sharma, in further view of Curry and in further view of Junqua. Applicants respectfully traverse the rejections.

With respect to Claims 29 and 30, Applicants respectfully submit that the combination of Junqua and Curry do not teach or suggest each element of the claimed invention. Junqua describes a system for identifying and adapting a TV-user profile by means of speech technology. In Junqua, a user's identity may be verified by a verification/identification module based on the user's speech, and then a predefined or pre-stored set of user preferences may be invoked to further guide the interaction between the user and the system (Junqua, Col. 1, lines 42-54). The Examiner concedes that Junqua does not explicitly teach using a default speech model during speech processing, but suggests that Curry teaches this element. The Examiner further suggests that it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings of Junqua with defaulting to a speech model because it would advantageously offer speech recognition to an unrecognized user (as opposed to not offering any speech recognition to an unidentified user). Applicants strongly disagree.

Applicants respectfully submit that Junqua, with or without Curry, does not teach or suggest the elements of the claimed invention for at least the following reasons. First,

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the Examiner cites various sections of Junqua as teaching or suggesting various elements of independent Claim 29. For example, the Examiner cites Col. 10 line 55 of Junqua as teaching or suggesting the element of dynamically identifying whether a new speech model has a better fit to the initial information. This section of Junqua, under the heading "Speaker Adaption", essentially talks about a new set of HMMs constructed based on a supervector to generate the adapted model. Applicants respectfully point out that this section of Junqua appears to simply describe how the natural language parser extracts semantics behind a user's natural language spoken input based on a database having two sets of grammars. Nothing in this section, however, can be construed to mean that Junqua discloses the claimed element of a control module that *selects* one of the at least two speech models as a selected default speech model based on the context information, *configures* a speech recognizer to use the selected default speech model, *dynamically identifies* whether a new speech model has a better fit to the characteristics of the context information and if so, *associates* the new speech model with the call as a new default speech model.

The Examiner concedes that Junqua does not explicitly teach or suggest the element of using a default speech model, but suggests that Curry teaches such an element and that the combination of Junqua and Curry renders the claimed invention unpatentable. Applicants strongly disagree. The section of Curry highlighted by the Examiner reads as follows:

> "However, a default speech model may be utilized when a user (e.g.. the driver) is not recognized or when the system cannot accept a new user"

Curry, Col. 2, lines 61-63

Applicants respectfully submits that this sentence in Curry essentially states the fact that a speech model may be defined as a default. Applicants are not, however, attempting to claim the general concept of assigning a speech model as a default. Instead, as claimed in independent Claim 29, a new speech model is examined to dynamically identify whether it has a better fit to the characteristics of the context information, and then, if the new speech model is a better fit, it is associate with the call as a new default speech model. Applicants respectfully submit that Curry does not teach or suggest this element of Claim 29, and as the Examiner concedes, Junqua also does not

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teach or suggest this element. Applicants therefore respectfully submit that the combination of Junqua and Curry does not in fact teach or suggest at least this element of independent Claim 29 (and by extension, the elements of dependant Claim 30). Applicants therefore respectfully request the Examiner to withdraw the rejection to these claims under 35 U.S.C. §103.

With respect to Claims 1, 2, 6-8, 11, 12, 15, 16, 18-20, 22, 25, 26 and 28, the Examiner submits that the combination of Sherwood, Sharma and Curry render these claims unpatentable. The Examiner states that Sherwood discloses "an enrollment method where a user utterance and determining the context of a user utterance and determining whether the utterance matches a portion of enrollment text." The Examiner then concedes that Sherwood does not explicitly teach "determining initial information and mapping target, mapping the initial information to at least one model, identifying a model having a best fir to the initial information, associating the model having a best fir with the mapping target as a default model." The Examiner suggests, however that Sharma discloses this element. Similarly, the Examiner concedes that Sherwood and Sharma do not explicitly teach using a default speech model during speech processing, but states that Curry teaches this element and as a result, the combination of Sherwood, Sharma and Curry render the claimed invention unpatentable. Applicants strongly disagree.

Sharma discloses a system and method for detecting a recorded voice. Specifically, Sharma describes a system and method to analyze the temporal characteristics of a user's speech, analyze the characteristics of the channel over which the user's voice is transmitted, train a pattern classifier to recognize the difference between live and recorded speech and employ an "audio watermark" to detect use of a recording of a previous enrollment or verification attempt (Sharma, Col. 3, lines 13-23). The focus of Sharma is therefore to examine various characteristics of user speech to identify differences between live and/or recorded speech.

The Examiner suggests that various sections of Sharma teach the elements of the claimed invention, and that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sherwood according to Sharma. In the Examiner's response to Applicants' previously submitted arguments re Sharma, the Examiner states

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that "the elements of Sharma that are relied upon relate to the measuring of an existing model and determining whether or not updating the model is necessary or prudent. For example...examiner points to the previously referred to section of Sharma (col. 12, line 1) wherein the combined set of speech characteristics represent the updated model as determined by the comparison process detailed in column 11 of Sharma.

Again, Applicants strongly disagree with the Examiner's characterization of Sharma. Applicants respectfully reiterate that the sections of Sharma highlighted by the Examiner bear no resemblance to the claimed elements of the independent claims. For example, the Examiner submits that Sharma, Col. 10, line 55, Col. 11, lines 25-44 and Col. 12, lines 36-66 teach or suggest the claimed element of "dynamically identifying whether a new speech model has a better fit to the initial information". In fact, the sections of Sharma highlighted by the Examiner make no mention whatsoever of speech models. Col. 10, line 55 states "... speech characteristics set is created during enrollment...", which does not teach this element. Col. 11, lines 25-44 describes the following:

> "It is preferred that all temporal characteristics (e.g., pitch contour, loudness contour, etc.) are compared to stored values before making a decision 170 as to the use of a recording. In the preferred embodiment, an overall match between characteristics sets is detected only if the majority of characteristics employed match within certain tolerances. As discussed, humans are not expected to be able to repeat temporal characteristics of speech with significant precision. Accordingly, a close match between current and previous speech characteristics sets indicates the use of a recording device. In addition to temporal characteristics, the "verification score" produced by ASR system 20 can be used as another test characteristic because, ordinarily, the score is not expected to remain constant on successive verification attempts. It is preferred that it the verification score is not to be used as a comparative characteristic, the comparison of temporal speech characteristics precede the comparison of the current sample to the stored voice print by ASR system 20."

Nothing whatsoever in this section can be construed as "dynamically identifying whether a *new speech model* has a *better fit* to the initial information." This paragraph simply describes the fact that a close match between current and previous speech characteristics sets indicates the use of a recording device. Applicants fail to see the relevance of this section to the elements of the claimed invention. Similarly, Col. 12, lines 33-66 of Sharma describes the following:

> · "It is preferred that the channel characteristics be extracted as follows using the concepts of homomorphic deconvolution. An audio signal with frequency spectrum S(.omega.) is distorted by a transmission channel with frequency response .... If the

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"logarithm and inverse Fourier transform ... of the magnitude of both sides of the equation are taken, the following equation result:.... Then, the preceding equation can be equivalently represented in cepstral domain: ... because cepstrum is defined as the inverse Fourier transform of the logarithm of short-time spectral magnitude. Time invariant convolution distortion ... can be estimated by averaging the cepstral vectors in the cepstral domain. The channel estimate ...in the cepstral domain is equivalent to the mean of $c(n)$ assuming that the mean of the speech portion of the cepstral equation $c(n)$ goes to zero. However, in practice, the cepstral mean may include information other than the estimate of the time-invariant convolutional distortion, such as coarse spectral distribution of the speech itself. Pole filtering attempts to decouple the speech information from the channel information in the cepstral mean."

Again, Applicants fail to see the relevance of this section to the element of "dynamically identifying whether a *new speech model* has a *better fit* to the initial information." The paragraphs preceeding these paragraphs of Sharma indicate that this is the general operation of another embodiment of the present invention employing recording device detection module 25B, which uses channel characteristics to detect whether an audio sample is a recording. The Examiner fails to explain how this section (or any of the other sections of Sharma) teach or suggest the elements of the presently claimed invention and Applicants respectfully submit that the Examiner cannot make such a showing because Sharma does not in fact teach or suggest these elements. Applicants therefore respectfully contend that based on Applicants' own review of Sharma and/or the sections highlighted by the Examiner, Sharma does not teach various elements of the claimed invention.

Finally, the Examiner's suggestion that combining Curry with Sherwood and Sharma teaches the missing element of using a default speech model during speech processing. Setting aside whether this combination of references is proper, Applicants once again reiterate the fact that Applicants are not attempting to claim the general concept that a default speech model may be used. Instead, as claimed in the independent claims herein, a new speech model is examined to dynamically identify whether it has a better fit to the characteristics of the context information, and then, if the new speech model is a better fit, it is associate with the call as a new default speech model. Curry does not teach or suggest such an element and as the Examiner concedes, neither Sherwood nor Sharma disclose this element. Applicants therefore respectfully submit that the combination of Sherwood, Sharma and Curry do not render Claims 1, 2, 6-8, 11, 12, 15, 16, 18-20, 22, 25, 26 and 28 unpatentable under 35 U.S.C. §103.

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Claim 4 is dependant on independent Claim 1 and Claim 10 is dependant on independent Claim 8. As described above, Sharma and/or Sherwood do not teach various elements of Claims 1 and 8. Applicants respectfully submit that the addition of Junqua and/or Curry to these references also does not teach these various elements. Thus, regardless of whether Junqua and/or Curry teaches the use of personal characteristics, Sherwood, Sharma, Junqua and/or Curry, alone or in combination do not teach all the elements of Claims 4 and 10. As such, Applicants submit that Claims 4 and 10 are patentable over Sherwood, Sharma, Junqua and/or Curry and respectfully request the Examiner to withdraw the rejection to these claims under 35 U.S.C. §103.

In summary, Applicants respectfully submit that the cited references do not render independent Claims 1, 8, 15, 19 and 25 unpatentable (and by extension, any claims dependant on these independent claims). Applicants therefore respectfully request the Examiner to withdraw the rejection to Claims 1, 2, 6-8, 11, 12, 15, 16, 18-20, 22, 25, 26 and 28 under 35 U.S.C. §103.
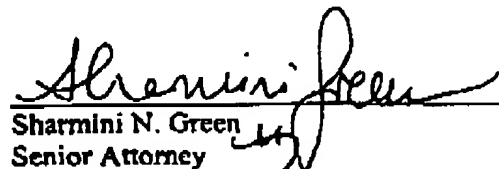
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CONCLUSION

Based on the foregoing, Applicants respectfully submit that the applicable objections and rejections have been overcome and that pending Claims 1, 2, 4, 6-8, 10-12, 15-16, 18-20, 22, 25-26 and 28-30 are in condition for allowance. Applicants therefore respectfully request an early issuance of a Notice of Allowance in this case. If the Examiner has any questions, the Examiner is invited to contact the undersigned at (714) 669-1261.

If there are any additional charges, please charge Deposit Account No. 50-0221.

Respectfully submitted,

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Sharmini N. Green
Senior Attorney
Intel Corporation
Registration No. 41,410
(714) 669-1261

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